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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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S-E-C-R-E-T

COUNTRY	USSR (Moscow Oblast)	REPORT	
SUBJECT	Karbolit Zavod (Carbolite Plant) in Orekhovo-Zuyevo	DATE DISTR.	18 MAR 1957
		NO. PAGES	49
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STATE	X# ARMY	X# NAVY	X# AIR	X FBI	AEC				

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REPORT

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DATE ACQUIRED		SUPPLEMENT TO REPORT NO.	
DATE OF INFORMATION			

THIS IS UNEVALUATED INFORMATION

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1. The Frunze Institute is usually referred to as the Frunze Central Institute for Plastics. [redacted] the abbreviation of the Institute to be NIIEZ PLASTMASS, the usual expansion for which would be Nauchno-issledovatelskiy institut i eksperimentalnyy zavod plastmass - Scientific Research Institute and Experimental Plant for Plastics. When [redacted] attempted to expand the abbreviation, he wrote Nauchniy institut i institut eksperimentalnovo zavod plastmass, imeni Frunze (sic) which, after the necessary orthographical corrections, would be Scientific Institute and Institute for Experimental Plastics Plant(s) i/n Frunze.

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2. The full name of this institute is Order of Labor Red Banner Scientific Research Physico-Chemical Institute i/n L. Ya. Karpov. In the present report, it is referred to as the Karpov Institute.

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a replacement was needed at Karbolit zavod for Dr. Arnd Iloff,[3] whose performance in plastics research allegedly was unsatisfactory to his Soviet superiors. At the Karbolit zavod, [redacted] the following German specialists: Dr. Hans Gastrow; Dr. Richard Hessen; Dr. Rudolf Menger; Dr. Herbert Stauffer; and Dr. Heinz Weempner.[4] With the exception of Stauffer, these specialists remained at Karbolit zavod [redacted] until their repatriation in May 1951; Stauffer was transferred to a chemical plant in Yefremov [N 53-09, E 38-07]. [redacted] there had been working at Karbolit zavod several German PW specialists and at least the following four deported contract chemists or engineers: Dr. Theodor Fischer,[5] Dr. Ing. Otto Hauffe,[6] Dr. Arnd Iloff, and Dr. Georg Wick.[7] These persons had subsequently been transferred to other chemical installations in the USSR. Iloff, as previously mentioned, had been relieved of his assignment, allegedly because of incompetence. Theodor Fischer, an acetate specialist, had been deported to the USSR by mistake instead of another chemist whose name was Leo Fischer. Theodor Fischer had been given no assignment at Karbolit zavod and was said to have spent most of his time reading. The German specialists and their families were billeted in one-family houses on Krupskaya ulitsa in Zuyevo, the new part of town. They were permitted to circulate unescorted within a radius of ten kilometers from the town periphery.

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3. Dr. Arnd Iloff is presently in the DDR.

4. [redacted] Dr. Hans Gastrow, in his capacity as plastics equipment engineer at Karbolit zavod, acted as a consultant for the utilization of foreign machinery; he thus had the opportunity to enter many production facilities at the plant which were off-limits to the other German specialists. His daughter, Inge, was the only dependent working in the plant. Dr. Gastrow was given brief preliminary interrogations by STIB in 1952 and by REG representatives in June 1955. [redacted]

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5. Theodor Fischer is presently in the DDR.

6. Otto Hauffe is presently in the DDR.

7. [redacted]

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Subordination and History of Karbolit Zavod

2. The Soviets usually referred to the plant as Karbolit zavod, although it was also known under the less common name of Khimiy zavod No. 1 or No. 6.[8] The plant was located approximately 85 km east of Moscow in Zuyevo, the western section of Orekhovo-Zuyevo

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Subordination

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3. The plant was directly subordinate to the Ministry of Chemical Industry and was operationally affiliated with a chemical plant in Vladimir [N 56-10, E 40-25][9] the name of which was unknown and with the Frunze Institute, Moscow, for coordination of research activity. The Vladimir plant was identified as that to which Drs. Wick and Hauffe were reassigned to work in late 1947. Coordination between Karbolit zavod and Frunze Institute was maintained by Prof. Grigoriy Semënovich Petrov

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The activities of Wick and Hauffe in Vladimir and those of Dr. Woempner, their counterpart in Karbolit zavod, were coordinated officially by Pesin (fnu),[11] the Soviet in charge of the Laboratory Building in which the Germans conducted their research. There was also an unofficial exchange of information, as Dr. Woempner travelled occasionally to Vladimir to visit his colleagues there and kept in touch with them by correspondence.

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History

4. Karbolit zavod was constructed shortly after World War I with the assistance of US engineers; it had soon become, and remained the largest and most important plastics plant in the USSR. The plant produced both plastics raw material and plastic parts and accessories for civilian and military consumers. No war damage to Karbolit zavod was noticed nor any such damage From 1946 to 1949, several hundred German PWs were engaged in housing construction in the vicinity of the plant or worked on the expansion of industrial sites in the plant compound. About 200 PWs were held in a camp near and some of them informed him that they

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8. Khimiy zavod is an improbable abbreviation of Khimicheskiy zavod; a more frequently used abbreviation is Khim zavod. Available reference materials gave no indication as to numerical designation of Karbolit zavod.

9. The plant at Vladimir referred to is probably the Koshalya Chemical Plant.

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25X1

had been working as construction workers inside the plant area unti 1948. When the units under construction went into production, these PW workers were removed from the sites. Karbolit zavod was the largest industrial installation in Orekhovo-Zuyevo and provided work for a large part of the population. 25X1 about 15,000 workers and their dependents lived in the Karbolit housing project which was located south of the plant.

Organization, Personnel, Production and Equipment of Karbolit Zavod

5. 25X1 Aside from the laboratory buildings the only other important buildings within the plant area proper the die-casting and injection molding workshops, which were in the largest production building of the plant; the Main Research and Development Laboratory, which was exclusively Soviet staffed; the lamination shop; and the Administration Building 25X1 The Germans worked on separate research tasks in the Laboratory Building, and were not informed whether their activities paralleled the research projects of the Soviet specialists working in the Main Research and Development Laboratory, or were a part of those projects; 25X1

Organization

6. 25X1 the following information on the organization of Karbolit zavod:

a. Nemkin (fnu) - Commercial Director of Karbolit zavod until the fall of 1948;

b. Sokolov (fnu) - Technical Director, 25X1

c. Petrov, Grigoriy Semenovich - Coordinator between Karbolit zavod and the Frunze Institute and possibly the USSR Academy of Sciences; 25X1 he was also a member of the Karbolit zavod Directorate; 25X1

d. Feytel (fnu) - Chief of the Lamination Production Department, one of the largest production facilities in the plant;

e. Abramov (fnu) - Chief of the Technical Planning and Design Bureau; Dr. Hans Gastrow worked under his supervision.

25X1

Personnel

7. a total of 4,000 to 4,500 persons, including scientists, were employed at Karbolit zavod. the total of leading scientific and managerial personnel to be approximately 25. The plant operated around the clock, the labor force working in two and sometimes three shifts, depending on the production shop. No work was performed on Saturdays because no power supply was available to the plant on that day. Sunday was a regular working day. Most textile factories, however, which constituted the second major industry in Orekhovo-Zuyevo, operated on Saturdays. approximately 50 percent of the labor force at the plant was female. The German specialists worked from 0730 to 1630, as did the Soviet personnel who worked with them in the laboratory building.

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Production

8. the following articles were in production:

25X1

a. Plastic accessories for the aircraft, automobile, electrical, radio, television, and telephone industries, such as fuse bodies, plastic gears, steering wheels, dash boards, bakelite radio cabinets, panels of all sorts, battery cases, buttons, and switch plugs;

b. Phenolic resins, which were produced on a large scale;

c. Unidentified plastic accessories for the Soviet Air Force, Army, and Navy.

9. These unidentified plastic accessories were manufactured in a large production facility. products for the above-mentioned military consumers were manufactured there. unidentified officers of the three service branches inspect the production facilities in these sections. plastic mines and plastic parts for rockets were manufactured there.

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10. Karbolit zavod was the only plant in the USSR producing acrylic resins and methacrylates. nylon, polystyrols, and bulk cellulose for injection pressing were imported from the US and delivered to Karbolit zavod as late as 1951. the polyvinyl chloride (PVC) being processed at Karbolit zavod originated from a plant in Dzerzhinsk. there were no bottlenecks, shortages of raw material, nor excessive equipment failures at Karbolit zavod.

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25X1

Equipment

11. In addition to the pre-World War II Soviet plant equipment, substantial quantities of dismantled German equipment were installed at Karbolit zavod during the early postwar period. This equipment originated chiefly from the Erkner Bakelit AG, Zerbst, Bautzen Nowack AG, and Leuna/Merseburg; the minor but more valuable part of the foreign equipment was from the US lend-lease program. Among this lend-lease equipment were three 60-ton injection presses [see also Site Layout legend of Karbolit zavod, point 19 A, page 28 of this report for further details of this equipment]. [redacted] approximately 25X1
60 percent of the plant machinery was of German, 30 percent of Soviet, and ten percent of US origin. [redacted] the Soviets 25X1
were attempting to increase production by modifying existing equipment to operate at higher temperatures.

Research Activity at Karbolit Zavod

12. [redacted] Dr. Iloff, and Dr. Woempner [q.v.] were the 25X1
only thermoplastics specialists at Karbolit zavod. [redacted] Iloff 25X1
concentrated on polymerization and Dr. Woempner on softeners. [redacted]

a. Research on improving the processing-temperature characteristics of polystyrol to obtain a product with good injection-molding characteristics at a temperature of about 60° C. [redacted] 25X1
[redacted] stabilization of plastics at temperatures normally encountered during routine processing. These molding powders were for prosthetic uses, especially dentistry. [redacted] 25X1
Soviet superiors stated that this was the first such research which had been conducted at Karbolit zavod. Products developed from this research were manufactured at the plant for commercial use.

b. Development of a process in which the monomer was processed to obtain molding powder in pellet form. This process was used for acrylonitrile, styrol, and/or butadiene;

c. Development of restoration stabilizers for emulsion latexes and artificial leather lacquers;

d. Production of acrylic laminates in addition to the production of pipes and blocks from methacrylate;

e. Preliminary tests for the production and recovery of additives for synthetic lubricants to improve viscosity and pour point, using acrylic esters and/or polyisobutylenes of unknown origin.

25X1

25X1

13. The German chemists at Karbolit zavod conducted their research in a building [redacted] refer to as the Laboratory Building. The 25X1
facilities of this laboratory were not modern, but were in the process of being rebuilt. Essentially, the equipment and instruments made available in the laboratory were of good quality; for the most part, they were from dismantled German factories and laboratories [for further details of the Laboratory Building, see paragraph 20 of this report]. There were approximately 20 Soviet scientists working in the Main Research and Development Laboratory of the plant [see legend of Site Layout of Karbolit Zavod, point 21, page 29 of this report]. In addition to these two large laboratories there were various smaller quality-control laboratories in the plant. As the Germans, for the most part, were doing basic research, they had little connection with these control laboratories, unless an acute problem arose in one of these laboratories and they were requested to give assistance to the Soviet technicians. Pesin, [redacted] coordinated the German research 25X1
activities with those of the Soviet specialists in the Main Research and Development Laboratory; he also coordinated all Karbolit zavod research activity with Prof. Petrov, who was in charge of research at the Frunze Institute. [redacted] 25X1

14. [redacted]

[redacted] The Germans ordinarily were not allowed to visit the production side of the plant or the control laboratories. [redacted] 25X1
[redacted] the Soviets were engaged in research to improve cellulose products and on PVC and Saran type plastics as well as on butadiene additives, silicones, and polyethylene foils. [redacted]

25X1

[redacted] The Soviet specialists were 25X1
developing Buna N (60 to 70 percent butadiene, 30 to 40 percent acrylonitrile) and Buna S (60 to 70 percent butadiene, 30 to 40 percent styrol) for use as molding powders. [redacted] 25X1
[redacted] they were attempting to increase the tensile strength, elasticity, and corrosion resistance, as well as to improve the working temperature.

Soviet Personalities at Karbolit zavod

15. [redacted] a photograph of some of the Soviet 25X1
personnel assigned to work in the Laboratory Building of Karbolit zavod [redacted] is reproduced on page 9 of this report; 25X1
identification of the Soviet personnel shown in the photograph appears beneath this reproduction. The photograph was taken in spring 1951 in the lobby of the ground floor of the Laboratory Building. [redacted] 25X1

25X1

SOVIET PERSONNEL ASSIGNED TO THE LABORATORY BUILDING, KARBOLIT ZAVOD

UPPER ROW
(left to right)

1. Unidentified locksmith; 2. Sviridovskiy (fnu); 3. Aleksandrov, Nikolay Nikolayevich; 4. Timofeyev (fnu); 5. Unidentified locksmith; 6. Unidentified locksmith;

MIDDLE ROW
(left to right)

7. Unidentified charwoman; 8. Mariya (lnu); 9. Anna (lnu); 10. Pesin, Mikhaylov; 11. Zholnin, Nikolay Vasilyevich; 12. unidentified laboratory assistant to Dr. Menger; 13. Misha (lnu);

BOTTOM ROW
(left to right)

14. Unidentified laboratory assistant to Dr. Menger; 15. unidentified laboratory assistant to Dr. Hessen; 16. Tamara (lnu); 17. Assistant to Dr. Menger; 18. Katya (lnu); 19. unidentified charwoman.

25X1

16. biographic information on Soviet personnel at Karbolit zavod.

25X1

Abramov (fnu)

Chief design engineer of Karbolit zavod 25X1
His offices were located in the Technical 25X1
Planning and Design Bureau [for further information on this building, see Point 22 of the Site Layout of Karbolit zavod, page 29 of this report]. Abramov had been with Karbolit 25X1
zavod for a number of years before 1948. Dr. Hans Gastrow was the only German specialist to have contact with him. Abramov supervised approximately 25 design engineers in addition to an unknown number of clerical personnel, and was responsible for the designing of machines and tools, including presses, dies, and molds, for plastics production. 25X1

Aleksandrov, Nikolay Nikolayevich

A graduate chemist and bakelite specialist who worked with Dr. Rudolf Menger [q.v.] in the Laboratory Building of Karbolit zavod from the latter part of 1946 to May 1951.

25X1

25X1

25X1

Anna (lnu)

NVD representative at the Laboratory Building of Karbolit zavod.

Feytel (fnu)

Chief of the press lamination shop at Karbolit zavod.

Ivan Ivanovich (lnu) Dr.

Neurologist employed by Karbolit zavod.

Katya (lnu)

Laboratory assistant to Dr. Woempner.

25X1

Mariya (lnu)

Nicknamed "Tante Marie" by the German specialists.

25X1

She was in charge of the technical library of the Laboratory Building and also served as interpreter and translator. She also performed semiofficial errands, escorted German dependents on out-of-town trips, and arranged appointments at the dispensary.

25X1

Misha (lnu)

Storage and supply supervisor of the Laboratory Building, responsible for the procurement and maintenance of laboratory equipment. His office was located adjacent to that of Pesin. Was at Karbolit zavod from 1946 to 1951.

25X1

Nemkin (fnu)

Commercial director of Karbolit zavod from 1946 or 1947 to fall 1948, when he was transferred to an unidentified plant in Tashkent

25X1

25X1

Pesin, Mikhaylov[12]

Chemist in charge of the Laboratory Building of Karbolit zavod from 1946 to May 1951. Immediate supervisor of all German specialists with the exception of Dr. Hans Gastrow, whose work was supervised by Abramov [q.v.].

25X1

12. Probably Mikhail (pnu) Pesin or (fnu) Mikhaylovich Pesin.

25X1

Sokolov (fnu)

Technical director of Karbolit zavod

25X1

Sviridovskiy (fnu)

in the Laboratory Building of Karbolit zavod from September 1948 to May 1951. He replaced Vakhtel [q.v.] when the latter was transferred in September 1948.

25X1

25X1

25X1

25X1

Tamara (lnu)

Laboratory assistant to Dr. Hessen.

Timofeyev (fnu)

A graduate chemist and bakelite specialist. Worked for Dr. Hessen in the Laboratory Building of Karbolit zavod from 1946 to May 1951.

25X1

Vakhtel (fnu)

From March to September 1948, she worked as a chemist and assistant in the Laboratory Building of Karbolit zavod. She was then transferred to the exclusively Soviet-staffed Main Research and Development Laboratory building and, toward the end of 1949, to an unidentified chemical plant or institute.

25X1

25X1

25X1

Valentina (lnu)

Laboratory assistant in the Laboratory Building of Karbolit zavod from the fall of 1948 to December 1950.

25X1

Zholnin, Nikolay Vasilyevich

Commandant of the German group at Karbolit zavod.

Zholnin (fnu)

Chief of the mechanical department of Karbolit zavod.

25X1

German Personalities at Karbolit Zavod

17. [redacted] 25X1

Gastrow, Hans, Dipl. Ing.

From November 1946 to May 1951 at Karbolit zavod [redacted]

[redacted]

Hessen, Richard, Dr.

From November 1946 to May 1951 at Karbolit zavod, where he worked in the laboratory building with the assistance of two, and sometimes three, female Soviet workers and the Soviet chemist Timofeyev [q.v.]. [redacted]

25X1

[redacted]

25X1

25X1

25X1

Menger, Rudolf, Dr.

From November 1946 to May 1951, he worked in the Laboratory Building with the assistance of the Soviet chemist Aleksandrov [q.v.] and two or three Soviet female laboratory assistants. His assignment consisted of the development of bakelite by means of condensation of phenol and its derivatives with formaldehyde and the qualitative and quantitative evaluation of this bakelite on a laboratory and semiproduction scale. The main purpose of this work was to obtain elastic and shock-resistant bakelite.

25X1

Stauffer, Herbert, Dr.

During World War II, Stauffer, an oppanol specialist, was technical director of the Frose chemical plant, Harz.

25X1

Stauffer started work at Karbolit zavod in November 1946: from March 1948 to August 1948

Stauffer was transferred to a chemical plant in Yefremov. He was repatriated from this plant in May 1951.

25X1

25X1

25X1

25X1

Woempner, Heinz, Dr.

From November 1946 to May 1951 at Karbolit zavod, where he worked with the assistance of two female Soviet workers and under the direct supervision of Pesin [q.v.]. His work at Karbolit zavod was chiefly on the development of plasticizers; phosphates, such as tricresyl phosphate, for PVC; as well as some research regarding phthalic esters and PVC. His research was applied to production at the Vladimir chemical plant only, and all his research assignments originated from there.

25X1

25X1

Overlay of Orekhovo-Zuyevo

18. On page 21 is an overlay of Orekhovo-Zuyevo (7680) on which pinpointed the location of Karbolit zavod and other pertinent installations and topographical features; these points as follows: 25X1 25X1

Point 1 — Plant enclosure. For details, see Point 1 of the Site Layout of Karbolit zavod on page 22.

Point 2 — Injection molding and die-casting workshops. For details, see Point 19 of the Site Layout of Karbolit zavod on page 27. This building was the largest single industrial installation within the plant area.

Point 3 — Laboratory Building. Place of work of German specialists. For details, see paragraph 20, page 39. 25X1 25X1

Point 4 — Administration Building. For details, see Point 10 of the Site Layout of Karbolit zavod on page 25.

Point 5 — PW Camp. For details, see Point 29 of the Site Layout of Karbolit zavod on page 31.

Point 6 — Residences of German specialists on Krupskaya ulitsa. For details, see Point 32, of the Site Layout of Karbolit zavod, on page 32.

Point 7 — Railroad track linking Karbolit zavod with the main line leading to Moscow. For details, see Point 26 of the Site Layout of Karbolit zavod on page 31. The number of tracks indicated ffers from the number recorded on the USAF Target Complex Mosaic. 25X1

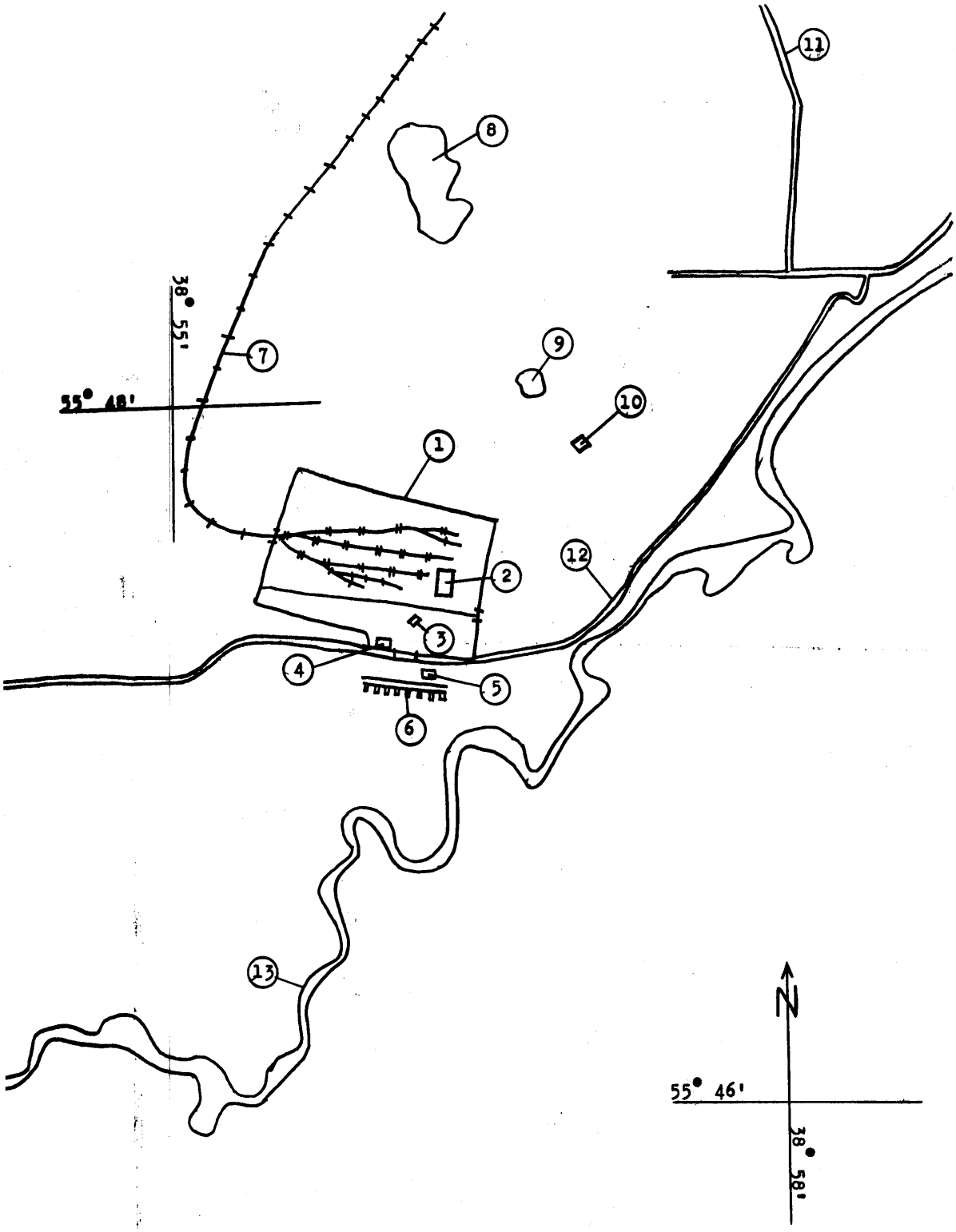
Point 8 — Lake. The German specialists went swimming there from time to time.

Point 9 — Small natural lake surrounded by fields. The Germans often swam in this lake also.

Point 10 — Electric Power Substation. For details, see Point 28 of the Site Layout of Karbolit zavod on page 31.

Point 11 — Road. Six meters wide and gravel covered. 25X1

25X1



[redacted] OREKHOVO-ZUYEVO (7680)

25X1

S-E-C-R-E-T

25X1

Point 12 Dzerzhinskaya ulitsa. For details, see Point 47 of the Site Layout of the Karbolit zavod on page 36.

Point 13 Klyazma River. For details, see Point 44 of the Site Layout of Karbolit zavod, page 35.

Site Layout of Karbolit zavod and Karbolit Suburb of Orekhovo-Zuyevo

19. On page 23 of this report is [redacted] sketch of Karbolit zavod and of Karbolit, a suburb of Orekhovo-Zuyevo. The points shown on this sketch were described as follows: 25X1

Point 1 Wooden Fence Surrounding the Plant Area

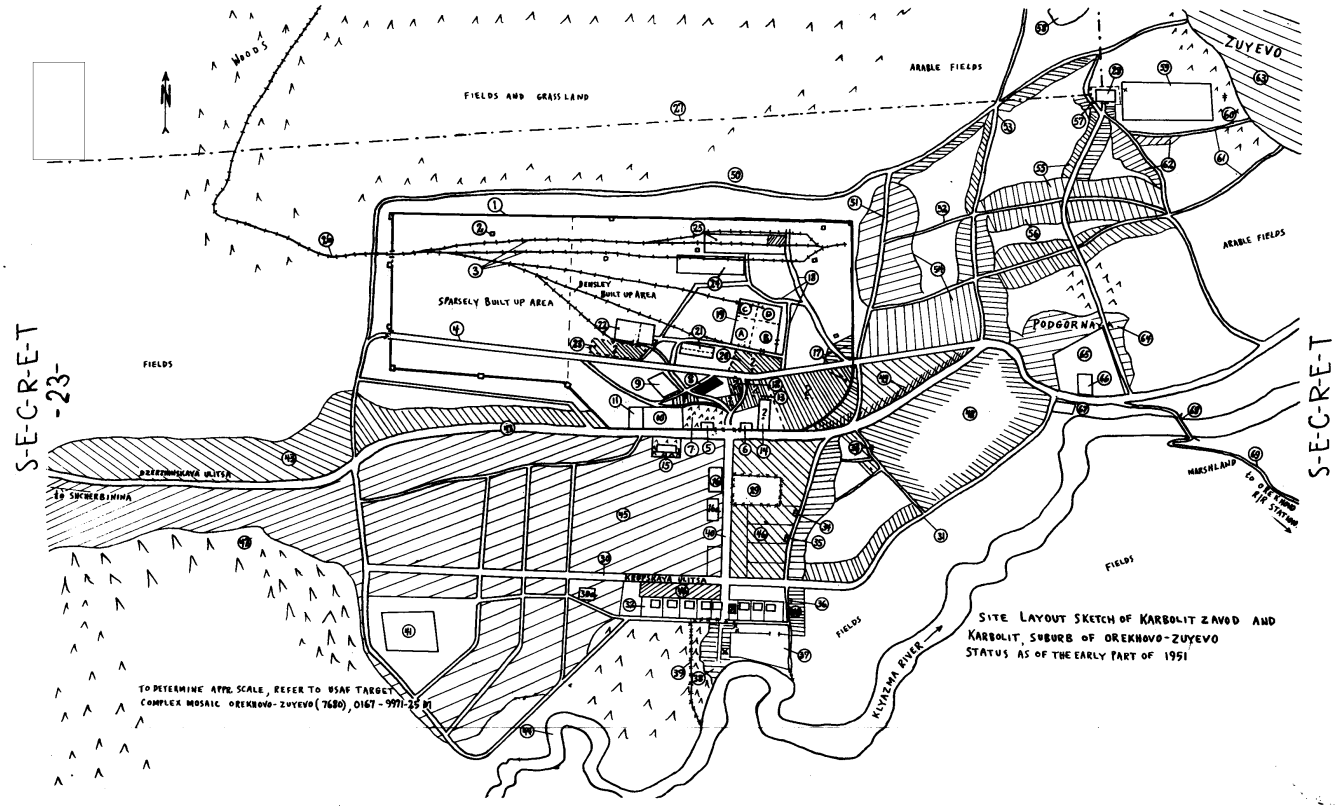
On the west side of the plant area there was a wooden gate at the point of entry of the rail sidings. This gate was kept open almost continuously for rail traffic into and out of the plant area; it was guarded day and night. To the south of this railroad gate was another wooden gate which was also guarded though seldom used. It was used for truck traffic leaving the plant area to the south. On the east side of the plant there was a low wooden gate through which the major part of the truck traffic passed; this gate was also guarded day and night. The main entrance to the plant for personnel and passenger vehicles was located on the south side of the plant (see Points 5 and 6 of the Overlay of Orekhovo-Zuyevo, page 20). [For further details of physical security of this area, see paragraph 22, page 45 of this report].

Point 2 Watchtowers

Watchtowers, like the one indicated at this point, were located at irregular distances from each other along the plant enclosure, at the gates into the plant area, and within the plant area itself. [redacted] 12 of these towers, but [redacted] there might have been more. For further details of physical security of this area, see paragraph 22 page 45 of this report. 25X1 25X1

Point 3 Plant Railroad Complex

From the main track entering the plant, several spurs, indicated on the sketch, led off in various directions inside the plant area. The plant had its own steam-operated switch engines. Incoming traffic, consisted mainly of the following: large paper and cardboard rolls, phenol, cresol, formaldehyde (formalin),



25X1

acetylene products, asbestos, sawdust, mica, and carbon black. Outgoing traffic consisted of finished plastic products, phenolic resins, and plastic shavings /for further details of these products, see paragraphs 8, 9, and 10, above/.

Point 4 Main Plant Road

Asphalt-covered, four-lane road.

Point 5 Guardhouse

This guardhouse was located at the main entrance to Karbolit zavod. It was a wooden structure with a stone foundation and consisted of two or three small rooms. For further details of physical security of this area, see paragraph 22, page 45 of this report.

Point 6 Guardhouse

Same description as Point 5 above.

Point 7 Park

This small landscaped area, consisting of grass and shrubbery, was used by the workers of Karbolit zavod for recreational purposes.

Point 8 Laboratory Building

All German specialists worked in this building. For further details, see paragraph 18 of this report.

Point 9 Lamination Shop

Brick building, 30 m x 20 m; [redacted] not recall the shape of the roof. [redacted] 25X1
[redacted] Fabrication of laminates on a resin basis was done here under the supervision of Soviet chemist Feytel. [redacted] the following 25X1
equipment in this large workshop: about twenty twelve-story presses; about ten rolling mills; six to ten large resin kettles; ball crushing machines for resin; machines for fibre fabrication; three or four overhead cranes; steam, electric, and high-frequency heating equipment; control laboratory and testing machine section to test products manufactured in this shop; and control instruments for the testing equipment. Material was moved by cranes and assembly line inside the building and then placed on trucks which entered through a large gate on the south-east side. This shop operated in three shifts; the first day shift consisted of about 100 workers, the second of 60 workers, and the third (a night shift) of 30 to 50 workers.

25X1

Point 10 Administration Building

Four-story, brick building, 30 m x 15 m, with its main entrance facing Dzerzhinskaya ulitsa. 25X1
Nemkin and Sokolov, commercial and technical directors of the plant, had their offices here. The commercial and bookkeeping departments of the plant were located on the ground floor, the executive offices on the second floor and the statistics section on the third floor of this building. about 100 persons 25X1
worked here.

Point 11 Annex of Administration Building

This building was located adjacent to the Administration Building and also had its main entrance facing Dzerzhinskaya ulitsa. The wage and salary section was located on the ground floor. The personnel, security, and labor relations sections were on the second floor; on this floor, job applicants were interviewed, passes issued, and background investigations carried out. On the third floor were unidentified sections; a passageway led from this floor to the Administration Building.

Point 12 Workshops

Several small brick buildings were located in this area. one, which was 25X1
a general repair shop for plant maintenance and also contained an apprentice training section.
25X1

Point 13 Industrial Area

This was a heavily built-up industrial area consisting of unidentified workshops 25X1
This was the most densely built-up 25X1
area within the plant complex. Generally speaking, the eastern part of the plant was densely built-up, while the western part was sparsely built-up.
25X1

Point 14 Unidentified Building

a large unidentified industrial 25X1
building in this area.

25X1

Point 15 **Dom Kultury**

This two-story building was a social center for Karbolit savod personnel. Its facilities included several assembly halls, movie theaters, a library, and social, dancing, and game rooms; it was surrounded by a landscaped area. This entire complex was located outside the plant enclosure.

Point 16 **Technical Library**

This two-story brick building was the main scientific technical library of Karbolit savod /see Point 18 paragraph 21 a, for location of the small technical library used by the German specialists. 25X1

The building was built by German PWs before 1949; it was surrounded by a small landscaped area. The various rooms were well stocked with Soviet and foreign reference materials. Mrs. Nemkina (fnu) wife of the commercial director of Karbolit savod, was in charge until 1949; Foreign 25X1 publications were usually available within six weeks after their appearance in the West; in most cases they were delivered from Switzerland. About ten female librarians were on duty during office hours. 25X1

Economics, and Statistics; Machine Technology; Inorganic Chemistry; Organic Chemistry; and Physics. There was one large library for each section, with its own reading and writing room.

25X1

Mrs. Nemkina herself informed that most foreign literature was purchased in Switzerland. Among the US publications, the following: 25X1 Industrial Engineering; Chemical Engineering; Modern Plastics; and Plastics Review. Publications of individual US concerns, such as and the 25X1 were not available. saw no classified literature at the library. None of the reference material, foreign or domestic, could be taken out of the building. colleagues had access to technical literature, but they had to procure it through "Tante Marie", the Soviet in charge of the technical library at the Laboratory 25X1 Building.[13]

25X1

25X1

Point 16 a **Nursery**

Infant dependents of Karbolit zavod personnel received care in this nursery while their parents were at work.

Point 17 **Motor Pool and Fire Department**

The motor pool included a gasoline station, dispatch office, several small repair shops and garages. The plant fire department was also located in that area.

25X1

Point 18 **Factory Roads**

They were asphalt covered and dual-lane. Small electric cars were used for transportation of materials within the plant.

Point 19 **Injection Molding and Die-Casting Shops**

This was the largest industrial site within the plant area. It consisted of two large sections, the injection department (A) and the die-casting department (B); and two smaller ones, the repair (C) and the personnel recreation sections (D).

25X1

Soviets employed in these shops. This single-story reinforced-concrete frame building measured approximately 50 m x 30 m and was equipped with several overhead travelling cranes. The four sections were separated from each other by brick walls. All persons working in these shops were required to carry a special pass, since some of the products manufactured there were destined for military consumers and were thus of a classified

25X1

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25X1

A. Injection molding department. Products here were fabricated of cellulose acetate, cellulose butyrate, and cellulose acetobutyrate, as well as from various styrol resins. 25X1 preparations were in progress to use vinyl and acrylic resins. 25X1 The equipment consisted of at least 30 injection machines, of which more than half were of German origin, such as and equipment. 25X1 The US equipment was fully automatic, as was that originating from some of the Soviet equipment was semiautomatic. Of the US lend-lease program equipment three 60-ton multi-jet injection presses. 25X1 Capacities of the various machines were as follows: US, 2,000 grams; 25X1 100 and 200 grams; 100 grams; and Soviet, 20 to 50 grams. Two operators were required for each of the larger machines, and one for each smaller machine. This shop operated in three shifts at 60 workers per shift. The shop had its own Technical Tests Division (OTK) and its own packing crew. The main gate to this shop was located on the south side of the building.

B. Die-casting shop. It was considerably larger in size than the injection molding department. Here, thermosetting products were fabricated [for details of these products, see paragraph 8 a, page 6 of this report]. About 50 presses of various types were located there. Fillers used included sawdust, paper, mica, textiles, and asbestos. All products were manually transported. Overhead travelling cranes were used only for the transportation of molds. The labor force consisted of about 100 men per shift, with a total of three shifts.

25X1

C. Maintenance and repair shop and storage for molds.

D. Workers' recreation facilities, including lounge and showers.

Point 20 **Unidentified Industrial Site**

25X1

"Fliederer kettles" were among the equipment set up in these buildings; 25X1
assumed that the chemical preparation of plastics, notably bakelite, to be processed in Point 19 was carried out at Point 20.

Point 21 **Main Research and Development Laboratory**

As previously mentioned, this laboratory was exclusively Soviet staffed, and none of the Germans had an opportunity to gain insight into the activities there.

25X1

The building measured approximately 30 m x 10 m. A so-called Tekhnikum, similar to the one in Point 2, paragraph 20 b, page 42 of this report, but better and more extensively equipped, was located on the ground floor. The laboratories of the Soviet staff were located on the second floor. Each scientist seemed to have his own office which, 25X1
was located opposite each laboratory in the southern section of the building [for further details, see paragraph 14, page 8 of this report].

Point 22 **Technical Planning and Design Bureau**

This large four-story building measured approximately 50 m x 15 m and had a flat roof. Chief design engineer Abramov [q.v.] was in charge of this building. Dr. Hans Gastrow [q.v.] was the only German specialist permitted to work here 25X1

25X1

25X1

Zholnin (fnu), the Soviet in charge of the mechanical department, also worked in this building, but was not certain on this point.

about 25 design engineers and an unknown number of auxiliary personnel were employed here. The Technical Planning and Design Bureau occupied only the west part of the building; the plant mess hall and cafeteria occupied the east wing [see dotted line on sketch]. Separate messing facilities existed for the various social and professional classes among the labor force of the plant; executive personnel and scientists, for instance, would never use the same section of the mess as the common laborers. Meals varied accordingly in quality and price.

25X1

Point 23 Unidentified Industrial Site

There were two or three buildings in this area;

25X1

Point 24 Storage and Transloading Ramps

Steel-frame brick building, 70 m x 30 m, where most of the incoming raw material was unloaded from rail cars onto plant trucks and where some of the material was temporarily stored. A railroad spur extended into the north side of the building, as sketched. The unloading was performed with bucket conveyers. The storage was guarded constantly by sentries, and several watchtowers were located in the area of Point 24 and Point 25.

Point 25 Storage and Transloading Ramps

Same construction and dimensions as Point 24. One railroad spur extended into the building and another ran along the north side of the building. On the east side there was a gate for truck deliveries. The Germans often used this door, since their furniture was stored there upon arrival and before departure. about 25 workers engaged in transloading operations in this storage area. This site was mainly used for the storage of finished products and loading them from trucks onto rail cars. This storage area, and Point 24 were guarded constantly by sentries, and several watchtowers were located in the area surrounding the sites.

25X1

25X1

Point 26 **Railroad Line**

This single track led from the plant to the main Gorkiy-Moscow railroad line. The track rested on a gravel-covered embankment, which was about one meter above the ground level. [redacted] there were also switching spurs along this track outside the plant area. The line served only for freight traffic, and it was steam operated.

25X1

Point 27 **Power Line**

This was the main power line supplying Karbolit zavod and [redacted] the Karbolit housing area. It was said to originate at a large power plant called Elektrogorsk, located somewhere northwest of Karbolit. The large steel towers, at least ten meters in height, were mounted on concrete bases and provided with large insulators. [redacted] estimated the capacity of the line at about 40,000 volts.

25X1

25X1

Point 28 **Electric Power Substation**

[redacted]

25X1

to the cemetery where his son was buried. From there, the power line (Point 27) led straight north to an unidentified point, and sublines branched out in various directions: some to Karbolit zavod; to the textile factories (Points 37 and 65); and to the urban areas of Karbolit, Zuyevo, and Orekhovo. [redacted] observed the workers engaged in laying underground cables. The enclosure of the station covered an area of about 150 m x 100 m and consisted of a barbed-wire fence, two meters in height. One guard was seen patrolling inside the enclosure. The station itself consisted of about four large and six smaller buildings, and was the largest and most modern installation of this type [redacted] in Orekhovo-Zuyevo. The large buildings measured approximately 30 m x 30 m x 10 m, and had flat roofs with tall windows in the upper portions. The oil circuit breakers could be seen in front of the buildings. This station was located at the town periphery and was bordered to the north by arable fields.

25X1

25X1

Point 29 **PW Camp**

About 200 German PWs were interned in this camp until 1949, when the camp was converted into an annex of the Karbolit social center or Dom kultury (Point 15) and

25X1

the existing sports facilities were expanded and improved. The PWs worked on housing construction for the most part; some, however, worked on the construction of industrial sites. As soon as these industrial sites became operational, the PWs were no longer permitted to enter.
prior to 1948, more than 200 PWs had been interned in Orekhovo-Zuyevo.

25X1

Point 30 Krupskaya ulitsa

This wide street extended for less than one-half kilometer and paralleled Dzerzhinskaya ulitsa (Point 47). It was about 30 m wide, and was unpaved except for a cobblestoned center strip about ten meters in width. Many sections of the residential areas extending on both sides of this street had been constructed by the PWs.
only the eastern section of the street, beginning at the intersection in the area of Point 6, was provided with street lights. A sewage system did not yet exist. A steam pipe was temporarily installed and extended aboveground, resting on wooden blocks, from somewhere in the residential area at Point 46 to the public bath at Point 30 a.

25X1

Point 30 a Plant Kindergarten and Public Bath

Children of plant personnel were cared for in this kindergarten free of charge. The public bath was located adjacent to this building.

Point 31 Extension of Krupskaya ulitsa

This section of the road was unpaved and led to the suburb Podgornaya (Point 64).

Point 32 Residences of German Specialists

This row of prefabricated one-family houses was occupied by the German specialists and their families.
N. V. Zholnin, the Soviet commandant, of the German group lived in the house marked with an X. These houses were located behind a modern housing project (Point 46) which faced directly on Krupskaya ulitsa; they were therefore given letter designations, alphabetically arranged, in addition to the regular house members. Each house was surrounded by a small garden and a wooden fence; the entrances were on the lane between the above-mentioned modern housing development and the houses.

25X1

25X1

Point 33 — Residential Area

The house indicated on the sketch was the residence of Zholnin (fnu), chief of the mechanical department of Karbolit zavod and brother of N. V. Zholnin. This general area consisted of wooden one-family houses, interspersed with a few multistory brick apartment houses. The road on which Zholnin's house was located was unpaved.

Point 34 — Residential Area

The house indicated was the private residence of Sokolov, the technical director of Karbolit zavod. Large new apartment houses, consisting of two and three room apartments for executive personnel employed in the plant, were located in this area. See Point 46 for a description of these buildings.

Point 35 — Private Residence

House occupied by Nemkin, former director of Karbolit zavod.

Point 36 — Apartment House

Modern, multistoried apartment house where Aleksandrov [q.v.] and Dr. Ivan Ivanovich (lnu), neurologist employed at Karbolit zavod, lived.

Point 37 — Textile and Silk Factory

This factory was located in the small area between Krupskaya ulitsa and the Klyazma River. It covered an area of approximately 100 m x 100 m and was surrounded by a wooden fence about two meters high. Four large, brick buildings, and some houses were located inside the area. German colleagues had access to the area since they were permitted to purchase food from the plant magazin. 200 to 300 workers were employed in this factory, most of whom were female. After the plastics industry, the textile industry provided the main source of livelihood for the population of Orekhovo-Zuyevo; several large textile factories were located in the combined urban area of the city.

25X1

25X1

S E C R E T

25X1

Point 38 — Housing Area

This area was adjacent to the textile factory and was surrounded by a barbed-wire fence. Only textile workers were billeted in this area.

Point 39 — Fence

Barbed-wire enclosure mentioned in Point 38; it marked the western limit of the textile factory complex.

Point 40 — Street

[redacted] most of the buildings in this area were of recent construction. It was 15 m wide including sidewalks; it was asphalt covered, in good condition, and was provided with street lights.

25X1

Point 41 — Athletic Field

This field belonged to Karbolit zavod; it had a seating capacity of approximately 2,000. There were frequent soccer games between the Karbolit team and teams from other chemical factories. The teams were subsidized by plant funds which were set aside for such things as training, pay, and vacations. The individual members of the teams were very popular, and the games aroused much interest and enthusiasm among the population.

Point 42 — Residential Area

This area consisted of wooden one-family houses on brick foundations. The houses were the property of the occupants, but the ground on which they stood belonged to or was administered by the Karbolit zavod. The owners were not permitted to sell a house without the prior approval of the plant administration. [redacted] the housing area was still being expanded in the direction of the river.

25X1
25X1

Point 43 — Same description as Point 42.

25X1

Point 44 Klyazma River

This river was not navigable in this area, reportedly because of strong currents. In this region, it had an average width of 40 m and depth to ten meters in spots. Sand banks were located in numerous places. The banks were mostly of clay and were very low up to the area where the bridge (Point 68) was located; in the spring, some of the terrain between the river and Krupskaya ulitsa was inundated.

25X1

the area south of the river, where the main Moscow-Gorkiy rail line was located, was often flooded and that this was the reason why the line had been built on a high embankment. There was no ferry service in this area.

25X1

Point 45 Residential and Industrial Area

Chiefly a residential area, more densely built-up and of less recent construction than those described in Points 42 and 43. Apartment houses and wooden one-story, one family houses were interspersed. Several small streets

25X1

crisscrossed this section of Karbolit. In the southwest corner of this area were several small factories and workshops of recent construction, among which were an armature plant, a tannery, a scrap iron processing shop, and a small foundry.

25X1

Point 46 Residential Area

This area contained several large, modern, brick apartment houses which were constructed by German PWs from 1946 to 1949. The apartments usually were of one and one-half or two and one-half rooms, and were equipped with central heating and other modern facilities. The steam was supplied from a heating plant from within the Karbolit zavod area

25X1

Most of the buildings were four-storied and had flat roofs. They were occupied exclusively by persons employed in Karbolit zavod.

25X1

at least 12 large apartment houses of this type were in this area. The area extended to the southeast across Krupskaya ulitsa.

25X1

Point 47 Dzerzhinskaya ulitsa

This was the main traffic artery in the area. The stretch in the vicinity of the plant was asphalted, whereas further east it was paved with cobblestones and was only half as wide. The width near the plant was about 25 m, including the sidewalks. Overhead street lights provided good illumination. Traffic, especially truck traffic, was heavy in both directions. The street reportedly led to a junction with the main Moscow-Dzerzhinsk highway somewhere east of Zuyevo. The numbering system began east of the area described in Point 49; at the western edge of the built-up area, the house numbers were in the one hundreds. Except for the plant enclosure and the area described under Point 49, the street was lined by residential buildings on both sides. Beyond the western end of the residential area, the street was not paved. The last stop of a bus line was located in the vicinity of the plant administration building (Point 10).

Point 48 Housing Area under Construction

This large area was administrated by the Karbolit zavod and consisted partly of open fields and partly of wooden houses of the log-cabin type. The areas still open fields were supposed to be settled within the near future [redacted] One or two of the houses were occupied by Karbolit zavod worker families. These families either built the houses themselves or at least actively participated in the construction. The cost of such a house averaged 30,000 rubles. Anyone desiring one of these houses was permitted to borrow 15,000 rubles from the Government, and about one-third of the total cost from the plant, supplying one sixth of its cost from his own savings. Repayment of these loans could be extended over a period of 20 years. Construction materials were delivered by the plant. These primitive houses were provided with electricity but had no running water supply. Water was obtained from artesian and other wells which were insufficient in number. When a house owner wished to sell his house, he had to obtain the plant's permission, even when the house was fully paid for.

25X1

Point 49 Commercial District

Most of the stores and shops of the Karbolit suburb were located in the area indicated by diagonal hatches on [redacted] sketch. These stores extended only on the

25X1

25X1

north side of Dzerzhinskaya ulitsa; they included state magaziny for food, clothing and furniture as well as a bank, drugstore, and a post office.

Point 50 — Road

This narrow dirt road led around the plant area and linked the western part of Karbolit suburb with the northwest part of Zuyevo.

Point 51 — Road

This narrow dirt road led through an old residential area of wooden houses for Karbolit zavod workers.

Point 52 — Dirt Path

Point 53 — Road

Dirt road, about six meters wide, leading north to an unidentified point.

Point 54 — Residential and Industrial Area

This densely built-up area included wooden one-family houses, some apartment houses of older construction, and some small plants and workshops for the manufacture and repair of machine parts.

Point 55 — Residential Area

Only old wooden houses, occupied by textile workers, were located in this sparsely built-up area.

Point 56 — Residential Area

Same description as in Point 55.

Point 57 — Residential Area

Wooden houses in which employees of the electric substation (Point 28) were billeted.

Point 58 — Lake

This small natural lake was surrounded by fields. The Germans often went swimming there. This lake is indicated by Point 9 of overlay of Orekhovo Zuyevo, page 21 of this report.

25X1

25X1

Point 59 **Cemetery**

Cemetary of Zuyevo; it covered an area approximately 500 m x 200 m, was not fenced in, and had no trees.

25X1

Point 60 **Chapel**

Located in a wooded area bordering on the town perimeter of Zuyevo.

Point 61 **Roads**

Narrow dirt roads leading to Zuyevo.

Point 62 **Residential Area**

Same construction as areas described in Points 55 and 56.

Point 63 **Town of Zuyevo**

about one-fourth of the total population of Orekhovo-Zuyevo resided here. 25X1 the combined urban areas had a population of about 200,000. In Zuyevo there were several textile and affiliated machine plants. Zuyevo had a well developed shopping district. Most of the municipal and Government buildings of Orekhovo-Zuyevo, however, were located in Orekhovo.

Point 64 **Suburb of Podgornaya**

This small residential area surrounding the textile plant was called Podgornaya. It was an old village which was in existence before Karbolit zavod was built. It consisted of wooden one- and two-family homes and several apartment houses for textile workers. About 2,000 people resided in this area.

Point 65 **Podgornaya Textile Factory**

One of the largest textile factories in Orekhovo-Zuyevo. It consisted of several large buildings, These 25X1 factories were probably built before World War I.

25X1

Point 66 — Hospital

This hospital was located within the textile factory compound, but it also served the residents of Karbolit. [redacted] 25X1

[redacted] well equipped and well organized. There were facilities for dental care and for eye, ear, and nose treatments, as well as surgical, pediatric, and neurological wards. 14

Point 67 — Elementary School

This was a newly built, modern, brick school building, which served children residing in Karbolit and the nearby sections of Orekhovo-Zuyevo.

Point 68 — Pontoon Bridge

This temporary bridge, for pedestrians, was removed during the cold season. It was made of wood and had railings on both sides. It was about 50 m long and one meter wide. This was the only bridge in this area of the town.

Point 69 — Foot Path

It led from the pontoon bridge to the railroad station of Orekhovo-Zuyevo.

Site Layout of the Laboratory Building

20. The laboratory building was constructed sometime in the late thirties. Before the arrival of German personnel in November 1946, the building had served as an annex to the Main Research and Development Laboratory. The two-story brick building measured about 30 m x 8 m x 10 m and had a flat roof. All German specialists at Karbolit zavod worked in this building; their laboratories were located on the second floor.

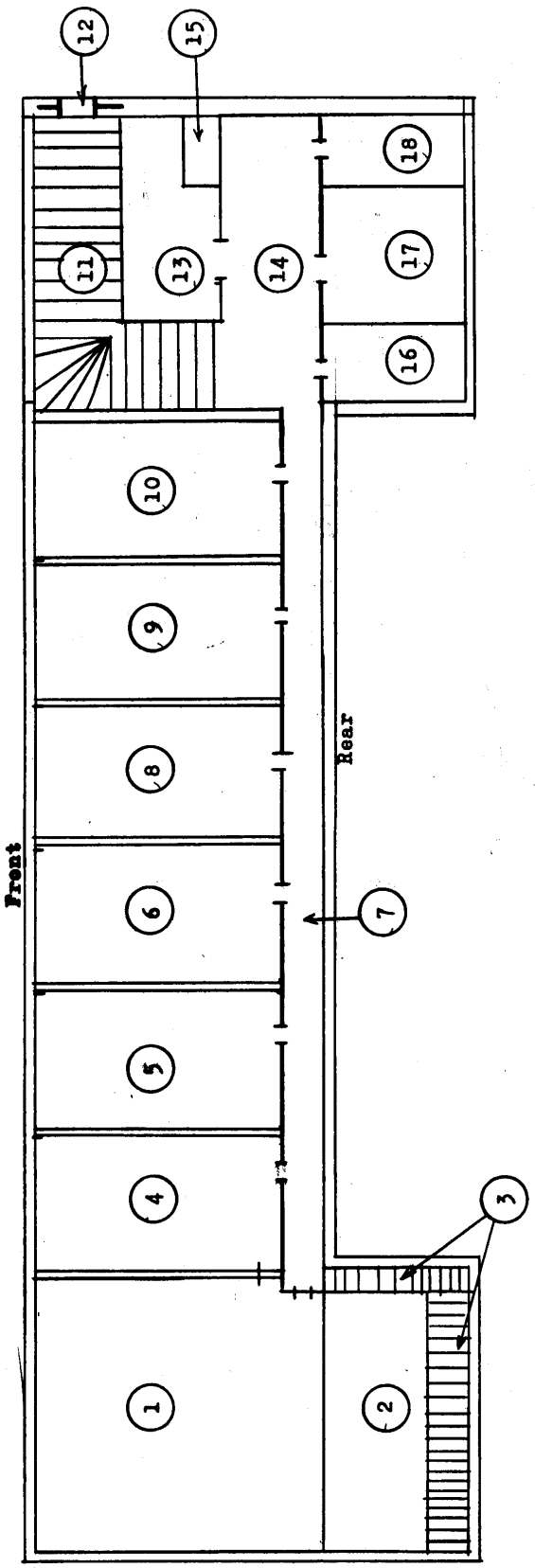
a. Second Floor /See sketch on page 40/

Point 1 — Laboratory of Dr. Hessen [q.v.] where he worked with the assistance of Timofeyev [q.v.] and two and sometimes three female technicians. This and all other laboratories were equipped with standard research laboratory equipment.

- - - - - - - - - -

[redacted] 25X1

25X1



LABORATORY BUILDING, SECOND FLOOR
KARBOLIT ZAVOD OREKHOVO-ZUYEVO

(Legend on pages 39 and 41-42)

25X1

Point 2 — Storage Room. This room was off-limits to German personnel [redacted] 25X1

Point 3 — Staircase. Used only in emergencies. The ground-floor door to this staircase usually remained locked.

Point 4 — Laboratory of Dr. Woempner [q.v.] and his two female Soviet laboratory assistants.

Point 5 — Laboratory of Dr. Menger, his assistant, Aleksandrov, and two female technicians.

Point 6 — Laboratory [redacted] 25X1

Point 7 — Corridor.

Point 8 — Laboratory of Dr. Gastrow and his daughter Inge.

Point 9 — Display Room. Various samples of bakelite and other plastics developed by the German specialists were displayed in this room on tables and in vitrines. There were numerous unidentified Soviet visitors, reportedly from other installations such as chemical plants, institutes, the Ministry of Chemical Industry, and the Academy of Sciences. Among these visitors, [redacted] officers of the Soviet Army, Air Force and Navy. Visitors were briefed by Pesin [q.v.] and the Germans were not permitted to attend the conferences. 25X1 [redacted] 25X1

Point 10 — Office of Anna (lnu), the MVD representative.

Point 11 — Staircase leading from ground floor to the second floor.

Point 12 — Main entrance to building on ground floor.

Point 13 — Storage room for laboratory equipment and chemicals. Inflammable and otherwise dangerous chemicals were stored in a small shack about ten meters from the main entrance to the laboratory building.

Point 14 — Anteroom.

25X1

Point 15 Freight elevator, which was operated by hand.

Point 16 Main storage room, administrated by Misha [q.v.].

Point 17 Office of N. V. Pesin [q.v.], who directed all activities in the Laboratory Building from this office. There was no laboratory equipment in this room; it was used occasionally as a conference room.

Point 18 Technical library managed by Mariya [q.v.].

b. Ground Floor /See sketch on page 43/

Point 1 Staircase. Used only in emergencies. The ground floor door to this staircase usually remained locked.

Point 2 The so-called tekhnikum, a large workshop which contained all equipment required for the experimental testing of developed products. Administratively, this workshop was under the control of Misha, the supply manager. All German and Soviet specialists working in the Laboratory Building used this workshop at one time or another. This workshop was staffed by some ten skilled workers or technicians who worked under the supervision of Feytel and a second unidentified Soviet. It contained the following equipment, arranged as indicated on the sketch:

(a) Steam-operated bakelite mixing and rolling drums. These were of various origins, but the German models were the most modern and suitable for experimental testing. Four or five presses for bakelite sheets were located adjacent to the drums, the capacities of which varied from one-half to two tons. Reducing machines, sieves, mixers, centrifuges, and multistage presses for laminates were also located in that area of the workshop. Most machines were electrically operated at either 220 v or 360-380 v AC.

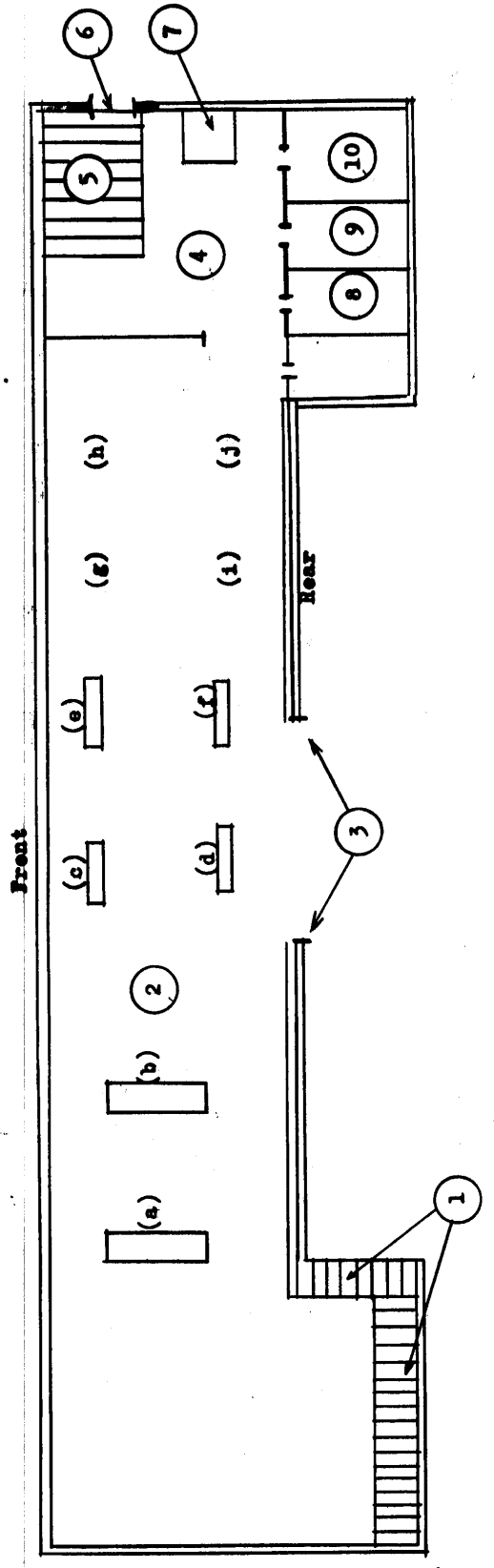
(b) Same machinery and equipment as described in (a).

(c) Condensation machines for bakelite, having a capacity of 1,500 liters each.

25X1

(d) Same machinery as described in (c).

25X1



LABORATORY BUILDING, GROUND FLOOR
KARBOLIT ZAVOD, OREKHOVO-ZUEVEVO

(Legend on page 42 and 44)

25X1

(e) Same machinery as described in (c).

(f) Same machinery as described in (c).

(g) Polymerization apparatus, having a capacity of 150 liters.

25X1

Thermo-plastic testing equipment was scarce because research and development of thermo-plastics had not been initiated at Karbolit zavod until after World War II; the plant had previously been engaged in bakelite production.

(h) Same machinery as described in (g).

(i) Same machinery as described in (g).

(j) Same machinery as described in (g).

Point 3 Sliding door. Usually kept locked, it was used chiefly for moving apparatus in and out of the workshop.

Point 4 Workshop containing a small smithy, several work benches, and an electrical section. Six Soviet mechanics were employed in this shop.

Point 5 Staircase leading from ground floor to the second floor.

Point 6 Main entrance to the laboratory building.

Point 7 Freight elevator, which was operated by hand.

Point 8 Shower room.

Point 9 Toilet.

Point 10 Tool storage room for the workshop section (Point 4).

Security Measures at Karbolit Zavod

Pass Control System

21. Immediately upon arrival, each German specialist was issued an installation pass by the chief of security

25X1

25X1

His offices were located in the annex of the administration building of the plant [see Point 11 on the Plant Site Layout, page 25]. The Germans kept their passes on their

25X1

person, inside and outside the plant area. At the beginning of each year, a new pass was issued. Every three months, the passes were provided with a new cachet made with a rubber stamp. 25X1
unable to recall the details of this cachet other than that it was a different color quarterly and that it was placed into squares especially printed on the pass for that purpose. 25X1
the Soviet personnel were not required to turn in their passes upon leaving the plant except for presentation for revalidating or rubber-stamping. 25X1

A rubber-stamped photograph of the bearer, approximately five by four centimeters, was pasted onto the front side. The photographs were taken in the photographic studio located in the Technical Planning and Design Bureau [see Point 22 on the Plant Site Layout, page 29]. Retouching of the photographs was permitted. The signature of the unidentified chief of plant security appeared on all passes in the lower right section of the pass. 25X1
passes

Visitors were issued temporary passes which consisted of simple printed forms on which the hour and date of issuance and the expected time of expiration were indicated in ink. These passes were issued by the security guards stationed at the main personnel entrance 25X1
The installation pass did not serve any function outside the installation, such as an identification card for residence.

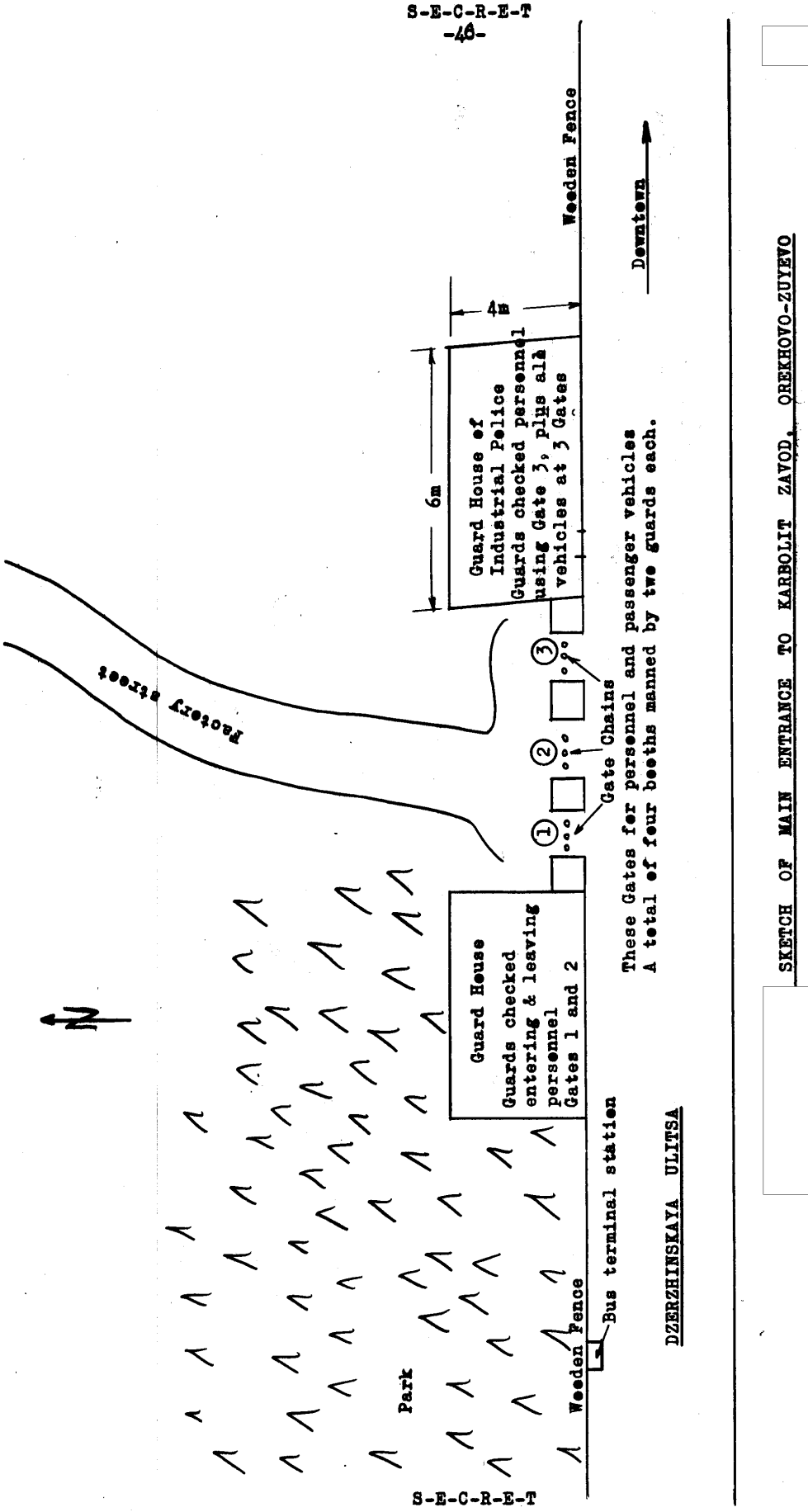
Physical Security and Guards

22. 25X1

workers leaving the plant area with conspicuous bags or other containers were requested by the guards at the main exit to show the contents. 25X1

certain of the workers were required to wear some sort of identification tags on their jackets 25X1
The entire plant area was surrounded with a wooden fence about two meters high on which strands of barbed wire were mounted. There were numerous watchtowers at irregular distances alongside the fence; a watchtower was located next to each railroad entrance [for details, see Plant Site Layout, page 22]. The towers were manned by male and female industrial police 24 hours a day; certain of the towers

25X1



SKETCH OF MAIN ENTRANCE TO KARBOLIT ZAVOD, OREKHOVO-ZUYEVO

25X1

25X1

were equipped with searchlights. These police wore army-type uniforms, probably army surplus clothing, and were armed with either pistols or carbines. At night, roving guards with watch dogs patrolled around the outside of the plant enclosure and, occasionally, within the plant area itself; the section of enclosure that extended along Dzerzhinskaya ulitsa was not patrolled. Barbed-wire rolls extended in a width of about two meters on the ground adjacent to the northern enclosure of the plant. the strength of the industrial police force ranged from 100 to 200 persons per eight-hour shift. These guards were not permitted to wear their uniforms when off duty. Most of the guards were in their thirties; there were more women than men. No guards were assigned to duty at the Laboratory Building Smoking was prohibited in most parts of the plant and even outside the buildings. this regulation did not apply to the Laboratory Building where the Germans were employed.

25X1

25X1

Protection and Classification of Working Materials

23. 25X1

At the close of the working day, all written material was usually collected without being inventoried by Sviridovskiy and then taken to the office of Anna, the MVD representative.

25X1

At the beginning of the working day, Sviridovskiy again returned the materials to his German colleagues. The doors of each laboratory were sealed, usually by Misha, as soon as the occupants finished their work in the late afternoon. When the Germans arrived for work in the morning, the seals had already been removed.

25X1

On several occasions, however, when working in the tekhnikum of the Main Research and Development Laboratory, he noticed unidentified Soviet personnel studying or perusing papers with the rubber-stamped sekretno clearly visible . At the completion of assignment at Karbelit zavod, required to sign a secrecy statement, valid for a period of five years from the date of signature. The statement was printed in Russian, German, French, and English; the statement signed at the Frunze Institute in Moscow was printed in Russian only.

25X1

25X1

25X1

Employment Security at Karbolit Zavod

24. [redacted] 25X1

[redacted] a friend [redacted] had applied for employment at the plant in summer 1950. He had first been required to report to the security office of the plant to submit his application and personal history form. Several days later, apparently after his application was checked from the standpoint of security and political reliability, he was informed that he was found to be acceptable and could now continue processing his application. With his papers, he then reported to the technical department in the administration building of the plant, where he was interviewed with regard to his professional suitability. He was found acceptable and was told to report to the commercial department in the same building; here he was given classification for such things as wage category and taxation. [redacted] each applicant was carefully screened for his political background and attitude. He had no knowledge of such details of the process of applying for employment at Karbolit zavod as the forms used or the interview techniques. 25X1

25X1

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